



## Rapid City Regional Hospital CCI Renovation/Addition

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This 10,000 SF project expanded and remodeled the John T. Vucurevich Cancer Center at Regional Hospital to allow a wider range of treatment for cancer patients. The focal point of this project is the addition of 16 cancer treatment stations. Each station has individual lighting and temperature control systems designed to maximize patient comfort.

Part of this multi-phase project is a new addition combined with remodel of existing treatment and support areas. The lower level houses facility Plant Operations Staff and the top level integrates into the OR storage program. The satellite pharmacy was also upgraded with a new preparation room, hood, exhaust and pressure control systems. To maintain continuous facility operation, the project was built in seven phases.

### Project Data

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#### Owner

Rapid City Regional Hospital  
Mark Thuringer (605) 719-8003

#### Location

Rapid City, South Dakota

#### Building Type

Regional Medical Center  
Chemotherapy Treatment Center

#### Project Features

7,500 Sq. Ft. Three Story Addition  
3,000 Sq. Ft. Remodel  
Air Handling Unit Addition

#### Mechanical Systems / Features

VAV air handling system  
Patient Spot Heating

#### Electrical Systems / Features

Comfortable Patient Lighting  
Electrical System Upgrade  
Mission Control Design

#### Construction Cost

\$2,500,000

#### Completion Date

2007



#### Mechanical Engineering

A new air handling unit was installed for the addition and ductwork was routed a significant distance through existing conditions to reach the site. The HVAC system uses variable volume technology and electronic sensing to maintain flow, pressure relationships, and the correct outside air percentage. The hydronic system serves radiant panels located above the treatment stations that give patients control of their environment during the treatment process.

Hands free faucet technology, along with medical gas, fire protection and an exterior snow melt system are also included in the project.

#### Electrical Engineering

Lighting in the infusion therapy patient rooms is equipped with multiple levels of control for ultimate patient comfort. To add interest, a scenic photo overlay was installed on a light fixture in each patient room. Indirect lighting with multi-level control was provided in the pharmacy and nurse stations for working comfort.

Electrical, data, and telephone outlets, nurse call and TV controls were provided within easy reach of each infusion therapy patient. Numerous normal and emergency powered electrical outlets, and telephone and data outlets were located at various heights throughout the facility's Mission Control Center to accommodate various types of control and monitoring equipment.

Cabletray was installed throughout the project area to establish a new cable pathway to the facilities low voltage infrastructure and connectivity. The existing electrical system was extended to accommodate the power needs of this new addition.